

Physical Distribution



Chapter 22

Ch 22 Sec 1 – Transportation Systems and Services

What you'll learn . . .

- The nature and scope of physical distribution
- How transportation systems are used to move products

Physical Distribution

- Comprises all the activities that help to ensure that the right amount of product is delivered to the right place at the right time.
- Physical Distribution is also known as ***logistics***.
- It includes order processing, transportation, storage, stock handling, and inventory control

Transportation

- The marketing function of moving products from a seller to a buyer
- Costs are a significant part of each sale
- There are five major transportation forms that move products
 - Trucking
 - Railroads
 - Marine Shipping
 - Pipelines
 - Air Cargo Services

Trucking

The most frequently used form of transportation



Types of Carriers



- Common Carriers
 - Provide transportation services to any business in its operating area for a fee
- Contract Carriers – Also known as for-hire carriers
 - Provide equipment and drivers for specific routes, according to agreements between the carrier and the shipper
 - Can be on a one-time basis or on a continuing basis.

Types of Carriers



- Private Carriers – transport goods for an individual business.
 - Equipment can be owned or leased
 - Initial cost may be large
 - Lets a business maintain total control over equipment, maintenance, availability, routes, delivery times, and handling procedures.

Types of Carriers



- Exempt Carriers – free from direct regulation of rates and operating procedures.
 - In most cases they carry agricultural products.

Advantages and Disadvantages



- Advantages of trucks
 - Convenient
 - Can deliver door-to-door
 - Help reduce packaging costs because some products require less packaging
 - Can make rapid deliveries of large amounts of goods
- Disadvantages
 - Delays due to traffic or equipment breakdown
 - Subject to size and weight restrictions

Railroads

Important for moving heavy and bulky freight such as coal, steel, lumber, chemicals, grain, farm equipment, and automobiles over long distances



Pricing and Delivery Services



- A carload is the minimum number of pounds of freight needed to fill a boxcar
 - Shippers pay lower rates if they fill an entire boxcar

Advantages and Disadvantages



- Advantages of Rail
 - Relatively low cost
 - Seldom slowed or stopped by bad weather
- Disadvantage of Rail
 - Lack of flexibility – can only pick up or deliver at stations so it can not reach as many places as trucks



Marine Shipping

Barges and container ships
transport merchandise
within the U.S. and around
the world.

Waterways

- Inland shipping is from one port to another on connecting rivers and lakes
- Intracoastal shipping is the shipping of goods on inland and coastal waterways between ports along the same coast.



International Waterways

- Oceans and rivers that connect continents and countries.
- Almost all overseas freight is transported by ships and barges because of the low cost.
- Products shipped include heavy equipment, steel, ore, forest products, grain and petroleum.



Advantages and Disadvantages

- Advantage of waterway
 - Low cost – cheapest form
- Disadvantages of waterway
 - Slow
 - Buyers located far from port city must add rail or truck which increases cost
 - May be affected by bad weather



Pipelines

A private carrier that is most frequently used to transport oil and natural gas



Advantages and Disadvantages

- Construction requires a high initial investment, but operational costs are small
- The risk of a leak is small, but when it does occur the damage is extensive
- Products move slowly but continuously



Air Cargo Services



Air Cargo Services

- **Less than 1% of total freight shipped**
- **Used for high-value, low-weight, time critical items.**



Advantages and Disadvantages

- Advantages of Air Transportation
 - Speed (overnight delivery possible)
 - Reduces inventory expenses and storage costs
- Disadvantage of Air Transportation
 - Cost – most expensive

Transportation Service Companies

- **U.S. Postal Service**
- **Express Delivery Services, such as UPS, Federal Express, DHL**
- **Bus Package Carriers such as Greyhound**

